Maintenance and Repair (MR)

Function:			
MR-2 Trouble Report Rate			
Definition:			
Report Rate: Total Initial Customer direct or referred Troubles reported, where the trouble disposition was found to be in the network, per 100 lines/circuits/trunks in service. "Loop" equals Drop Wire plus Outside Plant Loop. Network Trouble means a trouble with a disposition code of 3 (drop-wire), 4 (outside plant loop), or 5 (central office). UNE Loop is defined as 2 wire analog loop			
Exclusions:			
· Report rate excludes Subsequent reports (additional customer calls while the trouble is pending) · Troubles reported on BA official (administrative lines) · Troubles closed due to customer action. · Troubles reported by Bell Atlantic employees in the course of performing preventative maintenance, where no customer has reported a trouble Excluded from Total and Loop/CO report rates: · Customer Premises Equipment (CPE) troubles · Troubles reported but not found (Found OK and Test OK).			
Performance Standard:			
Report Rate: Parity with BA Retail. Trunk Retail Equivalent = IXC FGD. Parity should be assessed in conjunction with MTTR			
Report Dimensions			
Company: · BA Retail · CLEC Aggregate · CLEC Specific		Geography: · State	
Sub-Metrics			
MR-2-01	**Network Trouble Report Rate**		
Products	Retail: · Specials · IXC FGD Trunks	Resale: · Specials	UNE: · Specials Trunks: · CLEC Trunks
Calculation	**Numerator**	**Denominator**	
	Count of All trouble Reports with found network troubles (trbl_cd is FAC or CO)	Count of Lines or specials or trunks in service	

Sub-Metrics – MR-2 Network Trouble Report Rate (continued)			
MR-2-02	**Network Trouble Report Rate – Loop**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · Platform · Loop · 2 Wire Digital Services · 2 Wire xDSL Services
Calculation	**Numerator**		**Denominator**
	Count of all loop trouble reports (Disposition Code of 03 and 04)		Count of Lines in service
MR-2-03	**Network Trouble Report Rate – Central Office**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · Platform · Loop · 2 Wire Digital Services · 2 Wire xDSL Services
Calculation	**Numerator**		**Denominator**
	Count of all central office trouble Reports (Disposition Code of 05)		Count of Lines in service

Function:			
MR-3 Missed Repair Appointments			
Definition:			
The Percent of reported Network Troubles not repaired and cleared by the date and time committed. Also referred as % of customer troubles not resolved within estimate. Appointment intervals vary with force availability in the POTS environment. Includes disposition codes 03 (Drop Wire), 04 (Cable) and 05(Central Office). Loop is defined as disposition Codes 03 plus 04 and are always dispatched.			
Exclusions:			
· Missed appointments where the CLEC or end user causes the missed appointment or required access was not available during appointment interval · Excludes Subsequent reports (additional customer calls while the trouble is pending) · Customer Premises Equipment (CPE) troubles · Troubles reported but not found (Found OK and Test OK). · Troubles closed due to customer action. · Troubles reported by Bell Atlantic employees in the course of performing preventative maintenance, where no customer has reported a trouble			
Performance Standard:			
MR-3-01 and MR-3-02 - Parity with BA Retail.			
Report Dimensions			
Company: · BA Retail · CLEC Aggregate · CLEC Specific		Geography: · State	
Sub-Metrics			
MR-3-01	**% Missed Repair Appointment – Loop**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · Platform · Loop · 2 Wire Digital · 2 Wire xDSL
Calculation	**Numerator**	**Denominator**	
	Count of loop troubles where clear time is greater than commitment time (missed appointments for (M=X) for disposition codes 0300-0499).	Count of Loop Troubles (disposition codes 03 and 04).	
MR-3-02	**% Missed Repair Appointment – Central Office**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · Platform · Loop · 2 Wire Digital · 2 Wire xDSL
Calculation	**Numerator**	**Denominator**	
	Count of central office troubles where clear time is greater than commitment time (missed appointments (M=X) for disposition code 05).	Count of Central Office Troubles (disposition code 05).	

Function:
MR-4 Trouble Duration Intervals
Definition:
Mean Time to Repair: (MTTR) For Network Trouble reports, the average duration time from trouble receipt to trouble clearance. Includes disposition codes 03 (Drop Wire), 04 (Cable) and 05(Central Office). For POTS and Complex -type services this is measured on a "running clock" basis. Run clock includes weekends and holidays. For Special Services-type services and interconnection trunks, this is measured on a "stop clock" basis (i.e., the clock is stopped when CLEC testing is occurring, BA is awaiting carrier acceptance, or BA is denied access). Out of Service Intervals: The percent of Network Troubles that indicate an out of service condition which was repaired and cleared more than "y" hours after receipt of trouble report. Out of Service (OOS) means that there is no dial tone, the customer cannot call out, or the customer cannot be called. The Out of Service period commences when the trouble is entered into BA's designated trouble reporting interface either directly by the CLEC or by a BA representative upon notification. Includes weekends and holidays. Includes disposition codes 03 (Drop Wire), 04 (Cable) and 05(Central Office). Note: y" equals hours out of service (12 or 24 hours). For Special Services: OOS is defined as troubles where, in the initial contact with the customer it is determined that the circuit is completely out of service and not just intermittent problem (osi = 'y') and that the trouble completion code indicated that a trouble was found within the Bell Atlantic network (trbl_cd is "FAC" or "CO").
Exclusions:
· Subsequent reports (additional customer calls while the trouble is pending) · Customer Premises Equipment (CPE) troubles · Troubles reported but not found (Found OK and Test OK). · Troubles closed due to customer action. · Troubles reported by Bell Atlantic employees in the course of performing preventative maintenance, where no customer has reported a trouble
Performance Standard:
Parity with BA Retail.

Report Dimensions	
Company: · BA Retail · CLEC Aggregate · CLEC Specific	Geography: · State

Sub-Metrics				
MR-4-01	**Mean Time To Repair – Total**			
Products	Retail: · Specials · IXC FGD Trunks	Resale: · Specials	UNE: · Specials	Trunks: · CLEC Trunks
Calculation	**Numerator**		**Denominator**	
	Sum of Trouble clear date and time less trouble receipt date and time for central office and loop troubles (disposition code 03, 04 and 05 (Specials – excludes stop time))		Count of central office and loop troubles (disposition codes 03, 04 and 05.)	

Sub-Metrics MR-4 Trouble Duration Intervals (continued)			
MR-4-02	**Mean Time To Repair – Loop Trouble**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · Platform · Loop · 2 Wire Digital · 2 Wire xDSL
Calculation	**Numerator**		**Denominator**
	Sum of Trouble clear date and time less trouble receipt date and time for loop troubles (disposition code 03 and 04)		Count of loop troubles (disposition codes 03 and 04)
MR-4-03	**Mean Time To Repair – Central Office Trouble**		
Products	Retail: · POTS/ Complex	Resale: · POTS/Complex	UNE: · POTS – Platform · POTS - Loop · 2 Wire Digital · 2 Wire xDSL
Calculation	**Numerator**		**Denominator**
	Sum of Trouble clear date and time less trouble receipt date and time for central office troubles (disposition code 05)		Count of Total central office troubles (disposition codes 05)
MR-4-07	**% Out of Service > 12 Hours**		
Products	Retail: · IXC FGD Trunks		Trunks: · CLEC Trunks
Calculation	**Numerator**		**Denominator**
	Count of troubles out of service, where the trouble clear date and time less trouble receipt date and time is greater than 12 hours.		Count of Out of service troubles (Loop & CO)
MR-4-08	**% Out of Service > 24 Hours**		
Products	Retail: · POTS/Complex · Specials	Resale: · POTS/Complex · Specials	UNE: · Platform · Loop · 2 Wire Digital · 2 Wire xDSL · Specials
Calculation	**Numerator**		**Denominator**
	Count of troubles out of service, where the trouble clear date and time less trouble receipt date and time is greater than 24 hours.		Count of Out of service troubles (Loop & CO).

Function:

MR-5 Repeat Trouble Reports

Definition:

The percent of troubles cleared that have an additional trouble within 30 days for which a network trouble (Disposition Codes 3, 4, or 5) is found. A repeat trouble report is defined as a trouble on the same line/circuit/trunk as a previous trouble report within the last 30 calendar days. Any trouble, regardless of the original disposition code, that repeat as a code 3, 4, or 5 will be classified as a repeat report.

Exclusions:

A report is not scored a repeat where the original reports are:

- Troubles reported by Bell Atlantic employees in the course of performing preventative maintenance, where no customer has reported a trouble

Excluded from the "repeat" reports are:

- Subsequent reports (additional customer calls while the trouble is pending)
- Customer Premises Equipment (CPE) troubles
- Troubles reported but not found upon dispatch (Found OK and Test OK).
- Troubles closed due to customer action.
- Troubles reported by Bell Atlantic employees in the course of performing preventative maintenance, where no customer has reported a trouble

Performance Standard:

Parity with BA Retail.

Report Dimensions

Company:	Geography:
· BA Retail · CLEC Aggregate · CLEC Specific	· State

Sub-Metrics

MR-5-01	**% Repeat Reports within 30 Days**			
Products	Retail: • POTS/ Complex • Specials • IXC FGD Trunks	Resale: • POTS/Complex • Specials	UNE: • Platform • Loop • 2 Wire Digital • 2 Wire xDSL • Specials	Trunks: • CLEC Trunks
Calculation	**Numerator**		**Denominator**	
	Count of central office and loop troubles that had previous troubles within the last 30 days. (Disposition codes 03/04/05, That Repeated From Disposition codes < 14)		Total central office and loop Found troubles (Disposition codes 03, 04 and 05)	

Network Performance (NP)

Function:

NP-1 Percent Final Trunk Group Blockage

Definition:

The percent of Final Trunk Groups that exceed blocking design threshold. Monthly trunk blockage studies are based on a time consistent busy hour. The percentage of BA trunk groups exceeding the applicable blocking design threshold will be reported. Data collected in a single study period to monitor trunk group performance is a sample and is subject to statistical variation based upon the number of trunks in the group and the number of valid measurements. With this variation, for any properly engineered trunk group, the measured blocking for a trunk group for a single study may exceed the design-blocking threshold. [Tables specify the blocking threshold (Service Threshold) under which Bell Atlantic operates, above which it is statistically probable that the design blocking standard is not being met and the trunk group requires servicing action. For B.005 design, this is trunk-groups exceeding a threshold of about 2% blocking.]
For this measure, BA Retail Trunks are defined as Common Final Trunks carrying Local Traffic between offices. Typical common final trunks are between end offices and access tandems.
CLEC Trunks are dedicated final trunks carrying traffic from the BA access tandem to the CLEC.

Exclusions:

Trunks not included:

- IXC Dedicated Trunks
- Common Trunks carrying only IXC traffic

BA will electronically notify CLECs (operational trunk staffs), of the following situations for blocked trunks. This notification will identify that BA has identified a blocked trunk group and that the trunk group should be excluded from BA performance. Unless the CLEC responds back with documentation that the information on the condition is inaccurate, the trunk group will be excluded:

- Trunks blocked due to CLEC network failure
- Trunks that actually overflow to a final trunk, but are not designated as an overflow trunk
- Trunks blocked where CLEC order for augmentation is overdue
- Trunks blocked where CLEC has not responded to or has denied BA request for augmentation
- Trunks blocked due to other CLEC trunk network rearrangements

Performance Standard:

Because Common trunks carry both retail and CLEC traffic, there will be parity with Retail on common trunks.
For individual trunk groups carrying traffic between BA and CLECs, BA will provide explanation (and action plan if necessary) on individual trunks blocking for two months consecutively. An individual trunk should not be blocked for three consecutive months.
End User Standard:
602.1(m) Final Trunk Group - The last choice group of common interoffice communications channels for the routing of local, operator and/or toll calls.
603.3(g) Percent Final Trunk Group Blockages. This metric is defined as the monthly percentage of blocked calls on any local, toll and local operator final trunk groups and has a performance threshold of 3.0% or less for each final trunk group.
603.4(d)(3) For Percent Final Trunk Group Blockages, a Service Inquiry Report shall automatically be filed whenever performance is not at or better than 3.0 percent for three consecutive months.

Report Dimensions – NP-1 Percent Final Trunk Group Blockage		
Company: · CLEC Aggregate · CLEC Specific		Geography: · State
Products	Trunks: · CLEC Trunks	
Sub-Metrics		
NP-1-04	**Number Final Trunk Groups Exceeding Blocking Standard – 3 Months**	
Calculation	**Numerator**	**Denominator**
	Count of Final Trunk Groups that Exceed Blocking Threshold, for three consecutive months, exclusive of trunks that block due to CLEC network problems as agreed by CLECs.	Not applicable

Function:

NP-2 Collocation Performance

Definition:

Interval: The average number of business days between order application date and completion or between order application date and response (notification of space availability) date. The application date is the date that a valid service request is received.

(For NY Per 914 tariff, (Section 5.5.1(B)(3)) Un-forecasted demand will have the following interval start date:

- No Forecast Received: 3 months after application date
- Forecast received 1 month prior to application date: 2 months after application date
- Forecast received 2 months prior to application date: 1 month after application date
- Forecast received 3 months prior to application date: On the application date

Interval Stops if (stop clock):

- For CLEC milestone misses (Milestones are noted in 914 tariff in section 5.1.4(D) and 5.2.2(F) and in glossary.

Completions: BA will not be deemed to have completed work on a collocation case until the cage is suitable for use by the CLEC, and the cable assignment information necessary to use the facility has been provided to the CLEC.

Exclusions:

- None

Formula:

Interval:Σ (Committed Due Date – Application Date) / Number of Cages
% On Time: Number of Cages completed on Due Date (adjusted for milestone misses)/Number of Cages completed x 100

Performance Standard:

Physical[21]:
Notification of Space Availability: 8 Days
Collocation Interval: 76 Days
95% On Time
Virtual:
Notification of Space Availability: 14 Days
Collocation Interval: 105 Days
95% On Time

Report Dimensions

Company:	Geography:
· CLEC Aggregate · CLEC Specific	· State

Sub-Metrics

NP-2-01	% On Time Response to Request for Physical Collocation	
Calculation	**Numerator**	**Denominator**

[21] Intervals may vary in accordance with state regulations or tariffs.

[redacted]	Count of requests for Physical collocation cages where response to request is answered on time.	Count of requests for physical collocation received in period.

Sub-Metrics NP-2 Collocation Performance (continued)		
NP-2-02	**% On Time Response to Request for Virtual Collocation**	
Calculation	**Numerator**	**Denominator**
	Count of requests for Virtual collocation arrangements where response to request is answered on time.	Count of requests for virtual collocation received in period.
NP-2-05	**% On Time – Physical Collocation**	
Calculation	**Numerator**	**Denominator**
	Number of Physical collocation arrangements completed on or before due date (including due date extensions resulting from CLEC milestone misses).	Count of physical collocation cages completed.
NP-2-06	**% On Time – Virtual Collocation**	
Calculation	**Numerator**	**Denominator**
	Number of virtual collocation arrangements completed on or before due date (including due date extensions resulting from CLEC milestone misses).	Count of virtual collocation arrangements completed.

Billing Performance (BI)

Function:		
BI-2 Timeliness of Carrier Bill		
Definition:		
The percent of carrier bills sent to the carrier, unless the CLEC requests special treatment, within 10 business days of the bill date. The bill date is the end of the billing period for recurring, non-recurring and usage charges.		
Exclusions:		
· None		
Formula:		
(Number of Bills sent within 10 business days / number of bills sent) x 100		
Performance Standard:		
98% in 10 Business Days		
Report Dimensions		
Company: · CLEC Aggregate · CLEC Specific	Geography: · State	
Sub-Metrics		
BI-2-01	**Timeliness of Carrier Bill**	
Calculation	**Numerator**	**Denominator**
	Count of carrier bills sent to CLEC [22] within 10 business days of bill date.	Count of Carrier Bills distributed

[22] Sent to Carrier, unless other arrangements are made with CLEC.

GLOSSARY

Application Date	The date that a valid order is received.
ASR	Access Service Request
BA Administrative Orders	Orders completed by BA for administrative purposes and NOT at the request of a CLEC or end user. These also include administrative orders for BA official lines and LIDT (Left in Dial Tone). [SWO<>"NC", "NF"] [CLS<>TOV, or CLS_2<>TOV]
BASIC EDITS	Front-end edits performed by the Gateway prior to order submission. Basic Edits performed against Gateway provided source data include: State Code must be a BA state; CLEC Id can not be blank; All Dates and Times must be numeric; Order Type must be '1','2','3','4'; Svc Order Type must be '0', '1' '2'; Flowthru Candidate Ind and Flowthru Indicator must be 'Y' or 'N'; Lines Number must be numeric; Service Order Classification must be '0' or '1'; Confirmation Method must be 'E', 'M' 'W'; Each submission must have a unique key (PON + Ver + CLEC Id + State); Confirmation, Reject and Completion Transactions must have matching Submission record. Any changes to basic edits will be provided via BA Change Control procedures.
BFR	Bona Fide Request Process (BFR): See appendix D, Summary of BFR from N.Y. P.S.C. No. 916, Section 16.

Collocation Milestones	(FOR NY) From P.S.C. 914 Tariff, Section 5: Physical Collocation · Day 1 – CLEC submits completed application · Day 9 – BA notifies CLEC that request can be accommodated and estimates costs. · Day 14 – CLEC notifies BA of intent to proceed and submits 50% payment as set forth in 5.1.5(b) or provides written agreement agreeing to reimburse BA for all costs incurred should the CLEC withdraw its collocation request · Day 76 – BA and CLEC attend Methods and Procedures meeting and BA turns over the multiplexing node to the CLEC BA and the CLEC shall work cooperatively in meeting these milestones and deliverables as determined in the joint planning process. A preliminary schedule will be developed outlining major milestones. In physical collocation, the CLEC and BA control various interim milestones they must meet to meet the overall intervals. The interval clock will stop, and the final due date will be adjusted accordingly, for each milestone the CLEC misses (day for day). Prior to the CLEC beginning the installation of its equipment, the CLEC must sign the BA work completion notice, indicating acceptance of the multiplexing node construction work and providing BA with a security fee, if required, as set forth in Section 5.5.5. Payment is due within 30 days of bill date. The CLEC may not install any equipment of facilities in the multiplexing node(s) until after the receipt by BA of the BA work completion notice and any applicable security fee. Virtual Collocation: BA and the CLEC shall work cooperatively to jointly plan the implementation milestones. BA and the CLEC shall work cooperatively in meeting those milestones and deliverables as determined during the joint planning process. A preliminary schedule will be developed outlining major milestones including anticipated delivery dates for the CLEC-provided transmission equipment and for training.

Common Final Trunk Blockage:	Common final trunks carry traffic between BA end offices and the BA access tandem, including local traffic to BA customers as well as CLEC customers. (In rare circumstances, it is possible to have a common final trunk group between two end offices.) The percentage of BA common final trunk groups carrying local traffic, exceeding the applicable blocking design standard (either B.01 or B.005) will be reported. All CLEC trunks are engineered at the B.005 level. In all but the Washington Metropolitan area, local common trunks are engineered at the B.005 level. In the Washington Metropolitan area, common trunks are engineered at the B.01 level.
Common Trunks:	(A) *High Usage Trunks* carry two-way local traffic between two BA end offices. High Usage Common Trunks are designed so that traffic will overflow to final trunk groups. Local trunks are designed such that no more than 0.5% (B.005 standard) of traffic will overflow during the busy hour in all Bell Atlantic – NY geographies. (B) *Final Trunks*: (All Bell Atlantic except NY LATA) Final Trunks carry two-way local and long distance IXC traffic between an end office and an access tandem switch. Common Final Trunks are designed so that no more than 0.5% (B.005 standard) of traffic will block during the busy hour. (C) *Final Trunks - Local* (NY LATA 132) Final Trunks carry local two-way traffic between an end office and an access tandem switch. Common Final Trunks are designed so that no more than 0.5% (B.005 standard) of traffic will block during the busy hour. (D) *Final Trunks – IXC* (NY LATA 132 and Washington Metropolitan Calling Area) Final Trunks carry long distance IXC two-way traffic between an end office and an access tandem switch. Common Final Trunks are designed so that no more than 0.5% (B.005 standard) of traffic will block during the busy hour.
Company Initiated Orders	Provisioning orders processed for administrative purposes and not at customer request.
Company Services	Official Bell Atlantic Lines
Completion Date	The date noted on the service order as the date that all physical work is completed as ordered.
Coordinated Cut over	A coordinated cut-over is the live manual transfer of a BA end user to a CLEC completed with manual coordination by BA and CLEC technicians to minimize disruptions for the end user customer. Also known as a "hot cut". These all have fixed minimum intervals.

CPE	Customer Premises Equipment
Cut-Over Window	Amount of time from start to completion of physical cut-over of lines: 1 to 9 lines: 1 Hour 10 to 49 lines: 2 Hours 50 to 99 lines: 3 Hours 100 to 199 lines: 4 Hours 200 plus lines: 8 Hours
Dedicated Final Trunks Blockage:	A dedicated final trunk group does not overflow. Dedicated final trunk groups carry local traffic from a BA Access Tandem to a CLEC switch. All dedicated final trunk groups to the CLECs are engineered at a design-blocking threshold of B.005.

Dedicated Trunks	(E) *High Usage Trunks – CLEC Interconnection*: carry one-way traffic from a CLEC end office to a Bell Atlantic Tandem Office **or** carry two-way local traffic between a Bell Atlantic end office and a CLEC end office. High Usage Common Trunks are designed so that traffic will overflow to final trunk groups. Local trunks are designed such that no more than 0.5% (B.005 standard) of traffic will overflow during the busy hour in all Bell Atlantic geographies. These trunks are ordered by the CLEC. (F) *Final Trunks – CLEC Interconnection:* carry one-way traffic from a CLEC end office to a Bell Atlantic Tandem Office **or** carry two-way traffic between and end office and a tandem switch. CLECs order these trunks from BA and engineer to their desired blocking design threshold. (G) *High Usage Trunks – BA to CLEC Interconnection*: carry one-way local traffic from a Bell Atlantic end office to a CLEC end office. High Usage Common Trunks are designed so that traffic will overflow to final trunk groups. Local trunks are designed such that no more than 0.5% (B.005 standard) of traffic will overflow during the busy hour in all Bell Atlantic geographies. BA orders these trunks from CLECs. (H) *Final Trunks – BA to CLEC Interconnection:* carry one-way traffic from a BA end office or a tandem switch. Final Trunks are designed so that no more than 0.5% (B.005 standard) of traffic will block during the busy hour in all Bell Atlantic geographies. BA orders these trunks from CLECs. (I) *High Usage Trunks – IXC Feature Group D*: carry two-way traffic between a Bell Atlantic end office and an IXC POP. High Usage Trunks are designed so that traffic will overflow to final trunk groups. IXC trunks are designed such that no more than 0.5% (B.005 standard) of traffic will overflow during the busy hour in all Bell Atlantic geographies. IXCs order these trunks from BA. (J) *Final Trunks – IXC Feature Group D* carry two-way traffic between and end office and a tandem switch. Common Final Trunks are designed so that no more than 0.5% (B.005 standard) of traffic will block during the busy hour in all Bell Atlantic geographies. IXCs order these trunks from BA.

Dispatched Orders:	An order requiring the dispatch of a Bell Atlantic Field technician outside of a Bell Atlantic Central Office. Intervals differ by line size. In all areas, for orders greater than or equal to 10 lines, a facility check is required and the interval negotiated. In many, but not all areas, a facility records check (in Engineering) is also performed for orders with between 6 to 9 lines.
Dispatched Troubles:	Loop or Drop Wire Troubles reports found to be in drop wire or outside plant. Disposition codes 03 or 04.
Disposition Codes	The code assigned by the field technician upon closure of trouble. This code identifies the plant type/location in the network where the trouble was found.
DUF	Daily Usage Feed:
FOC	Firm Order Confirmation
Front End Close-Out	A trouble report closed with the customer on the line usually within 10 minutes of taking trouble. These include cancellations by the customer or CLEC. Disposition Codes: 0741(RE<10), 0747, 0706(CP=291).
LIDT	Left in Dial Tone Orders. These are orders used after a customer has moved out of a residence dwelling and the line has been disconnected for billing – to leave in reserve Office Equipment (OE) assigned to the cable pair in the central office. Once another customer moves back into the location a second order is written to remove the LIDT status to enable the customer order to process. These are not customer requested orders.
Loop Qualification	Loop qualification is the manual step whereby it is determined if the loop facility meets or can be made to meet specifications necessary for ISDN services. It must be provided on non-loaded facilities with less than 1300 OHMs of resistance and not more than 6 kft of bridge tap.
LSR	Local Service Request
LSRC	Local Service Request Confirmation
Mechanized Flow-Through:	Orders received electronically through the Gateway and requiring no manual intervention to be entered into the service order processor.
Missed Appointment Codes	Bell Atlantic Missed Appointment Codes: CB = Business Office, CC = Common Cause, CE = Equipment, CF = Facility, CL = Load (lack of work forces), CS = Switching/programming, CO = Company Other Customer Missed Appointment Codes: SA = Customer Access, SR = Customer Not Ready, SO = Customer Other, SL = Customer requested later due date
Network Troubles	Troubles with a disposition code of 03 (drop), 04 (loop), or 05 (central office). Excludes Subsequent reports (additional customer calls while the trouble is pending), Customer Premises Equipment (CPE) troubles, troubles reported but not found on dispatch (Found OK and Test OK), and troubles closed due to customer action.

Non-Mechanized:	Orders that require some manual processing. Includes orders received electronically that are not processed directly into the legacy provisioning systems, and are manually entered by a BA representative into the BA service order processor. For orders not received electronically (such as faxed or courier orders), 24 hours are added to all intervals.
No-Dispatch Troubles:	Troubles reports found to be in central office, including frame wiring and translation troubles. Disposition codes 05.
No-Dispatch Orders:	Orders completed without a dispatch outside a Bell Atlantic Central Office. Includes orders with translation changes and dispatches inside a Bell Atlantic Central Office.
Orders with ≥ 10 lines:	In some geographic areas, a facility check is completed on orders greater than 5 lines. In all geographic areas, orders with 10 or greater lines require a facility check prior to order confirmation and due date commitment.
OSS	Operations Support Systems
POTS Services	*Plain Old Telephone Services* include all non-designed lines/circuits that originate at a customer's premise and terminate on an OE (switch Office Equipment). POTS includes Centrex, Basic ISDN and PBX trunks.
PON	*Purchase Order Number:* Unique purchase order provided by CLEC to BA placed on LSRC or ASR as an identifier of a unique order.
Projects	Projects are designated by CLECs. For Trunks, any request for a new trunk group, augment for more than 384 trunks, complex (E911 or DA) or request out of the ordinary requiring special coordination, such as rearrangements is considered a project.
Reject	An order is rejected when there are omissions or errors in required information. Rejects also include queries where notification is provided to a CLEC for clarification on submitted orders. The order is considered rejected and order processing is suspended while a request is returned or queried.
Run Clock	A measure of duration time where no time is excluded. Duration time is calculated comparing the date and time that a trouble is cleared to the date and time that the trouble was reported.
Segment	Segments are parts of whole orders. [NVL SEGMENT, 0=<1] A segment is used to apportion a longer order to meet limitations of record lengths. Similar to a separate page or section on the same order.
Special Services	Any service or element involving circuit design. Any service or element with four wires. Any DS0, DS1 and DS3, no access service. Excludes trunks. IOF and EEL are separately reported for provisioning.

Stop Clock	A measure of duration time where some time is excluded. The clock is stopped when testing is occurring, BA is awaiting carrier acceptance, or BA is denied access.
Suspend/Restore Orders	Orders completed by BA to suspend for non-payment or restore for payment subject to state commission Collections guidelines. [SNPRES_IND.IS NOT NULL]
Test Orders	Orders processed for "fictional" CLECs for BA to test new services, attestation of services etc. Includes the following CLEC AECN's: 'DPC', 'DPCL','NYNX','ZKPM','ZPSC','ZTKP','ZTPS','ZJIM'.
Two wire digital ISDN Loop	2 wire unbundled digital loop (previously called Two Wire Digital Loop) that is compatible with ISDN Basic Rate service. It is capable of supporting simultaneous transmission of 2 B channels and One D channel. It must be provided on non-loaded facilities with less than 1300 OHMs of resistance and not more than 6 kft of bridge tap. This service provides a digital 2-wire enhanced channel. It is equivalent to a 2-wire loop less than 18,000 feet from the NID at the end user's premises to the main distributing frame (which is connected to the CLEC's collocation arrangement), in Bell Atlantic's central office where the end user is served. The 2-wire digital – ISDN BRI loop, currently offered by Bell Atlantic, is designed to support the Integrated Services Digital Network (ISDN) Basic Rate Service which operates digital signals at 160 kilobytes per second (kbps). The 2-wire digital – ISDN BRI loop is only available to the CLEC for use in conjunction with the provision of local exchange service and exchange access to its end users.

Product identification descriptions:

Retail	Major Customer Name/Number entered on Provisioning order first 4 characters does not contain the values "RSID" which indicates resold or "AECN" which indicates unbundled.
Resale	Major Customer Name/Number entered on Provisioning order-first 4 characters does contain the value "RSID" the 6th through 10th indicate reseller id. RSID except test and training RSID orders Ordering: ORDER-TYPE of ORDERING-MASTER-REC = ' 1'
UNE	Major Customer Name/Number entered on provisioning order- first 4 characters contains the values "AECN" which indicates unbundled. Characters 6 through 10 indicate the Telecommunications carrier id. Ordering: ORDER-TYPE of ORDERING-MASTER-REC = '2' or '3'

POTS - Total	Two wire analog service with a telephone number and POTS class of service. Includes analog loop (SVGAL). Ordering: · Service order classification of ordering master rec = 0 Provisioning: · Pots Orders are defined as not having a circuit layout (CL_FID IS NULL) or are not for ISDN service (SCM_2 IS NULL) Maintenance: · Class Service = 04/05/06/07/08/09/10/13/19/20/21
Complex:	Provisioning: · ISDN Basic Rate: Secondary Service Code Modifier (SCM_2) is not blank · ISDN Primary: Service Code Modifier (SCM) begins with "IB" · 2 Wire Digital Services · 2 Wire xDSL Services

Special Services	*Special Services* ("Specials") are services that require engineering design intervention. These include such services as: high capacity services (DS1 or DS3), Primary rate ISDN, 4 wire xDSL Services, digital services and private lines or foreign served services (a line physically in one exchange, served by another through a circuit). Ordering: · Service order classification of ordering master rec = 1 Provisioning: · CL_FID is not NULL Maintenance: · Criteria for inclusion is Circuit format (cfmt) is 's','t','2','3' as defined by Bellcore standard, report category (rpt_cat) is "CR" indicating a Customer Reported trouble, circuit format does not indicate (fourth character of circuit id for a length of 2) "TK","IB","DI","DO" because these are considered POTS, 7th character of circuit id does not indicate official Bell Atlantic line as defined by Bellcore standard practice, trouble code (trbl_cd) is either "FAC" or "CO" indicating the trouble was found in the Facility-cable (from Central Office to customers location) or in the Central Office (the trouble was found within the Bell Atlantic central office), Maintenance center (MCTR) is not training or blank which excludes troubles entered for employee training purposes, Subsequent calls on the same trouble are not included in these metrics, Troubles are excluded where circuit id (cktid character 4 for a length of 2) indicates access tariff filing.
For Trunks:	For Maintenance: Criteria for inclusion is Circuit format (cfmt) is 'M' as defined by Bellcore standard, report category (rpt_cat) is "CR" indicating a Customer Reported trouble, trouble code (trbl_cd) is either "FAC" or "CO" indicating the trouble was found in the Facility-cable (from Central Office to customers location) or in the Central Office (the trouble was found within the Bell Atlantic central office), Maintenance center (MCTR) is not training or blank which excludes troubles entered for employee training purposes, Subsequent calls on the same trouble are not included in these metrics.

CALCULATION OF

PARITY AND BENCHMARK PERFORMANCE

Statistical Methodologies:

Where the standard for a measure is "Parity with Bell Atlantic Retail," Bell Atlantic's performance for AT&T will be compared to Bell Atlantic's performance for its retail operation within the measured service area to determine whether "parity" exists. Bell Atlantic will use statistical methodologies as one means to determine if "parity" exists, or if the performance for AT&T is equivalent to the performance for Bell Atlantic Retail. For performance measures where "parity" is the standard and sufficient sample size exists, Bell Atlantic will use the "modified Z statistic" proposed by a number of CLECs in LCUG (Local Competitors User Group). The specific formulas are detailed below:

Measured Variables:	Counted Variables:
$t = \frac{\overline{X}_{CLEC} - \overline{X}_{BA}}{\sqrt{s_{BA}^2 (\frac{1}{n_{CLEC}} + \frac{1}{n_{BA}})}}$	$Z = \frac{P_{CLEC} - P_{BA}}{\sqrt{P_{BA}(1 - P_{BA})(\frac{1}{n_{CLEC}} + \frac{1}{n_{BA}})}}$

Definitions:

Measured Variables are metrics of means or averages, such as mean time to repair, or average interval.
Counted Variables are metrics of proportions, such as percent measures.

$\overline{X}$ is defined as the average performance or mean of the sample
S is defined as the standard deviation
n is defined as the sample size
p is defined as the proportion, for percentages 90% translates to a 0.90 proportion

A Z or t score of below –1.645 provides a 95% confidence level that the variables are different, or that they come from different processes.

Sample Size Requirements:

The modified Z or t statistic will be used for measures where "parity" is the standard, unless there is insufficient sample size. For measured variables, the minimum sample size is 30. For counted variables, np(1-p) must be greater than or equal to 5.[23] When the sample size requirement is not met, Bell Atlantic will do the following:

If the absolute performance for AT&T is better than the Bell Atlantic Retail performance, no statistical analysis is required and the standard will be deemed to have been met. If the performance is worse for AT&T than Bell Atlantic Retail, Bell Atlantic will use the t distribution for measured variables until such time as a permutation test can be run in an automated fashion. For counted variables, the binomial distribution will be used. If the t distribution shows an "out of parity" result, Bell Atlantic will run the permutation test. If the permutation test shows an "out of parity" condition, Bell Atlantic will perform a root cause analysis to determine cause. If the cause is the result of "clustering" within the data, Bell Atlantic will provide documentation of such clustering. The nature of the variables used in the performance measures is that they do not meet the requirements 100% of the time for any statistical testing. Individual data points are not independent. The primary example of such non-independence is a cable failure. If AT&T has fewer than 30 troubles and all are within the same cable failure with long duration, the performance will appear out of parity. However, for all troubles, including Bell Atlantic Retail troubles, within that individual event, the trouble duration is identical. Another example of clustering is if AT&T has a small number of orders in a single location, with a facility problem. If this facility problem exists for all customers served by that cable and is longer than the average facility problem, the orders are not independent and clustering occurs. Finally, if root cause shows that the difference in performance is the result of AT&T behavior, Bell Atlantic will identify such behavior and work with AT&T on corrective action.

Exceptions:

A key assumption in using statistics to evaluate parity is that the data are independent. Events included in the performance measures of provisioning and maintenance of telecommunications services are not independent. The lack of independence is referred to as "clustering" of data. Clustering occurs when individual items (orders, troubles etc.) are clustered together as one single event. This being the case, Bell Atlantic will note an exception to the performance data in the performance report if any of the following events occur:

- Event Driven Clustering: Cable Failure: If a significant proportion (more than 30%) of AT&T's troubles are in a single cable failure, Bell Atlantic will provide the data demonstrating that all troubles within that failure, including Bell Atlantic Retail troubles, were resolved in an equivalent manner. Then, Bell Atlantic will provide the repair performance data with that cable failure performance excluded from the overall performance for both AT&T and Bell Atlantic Retail and the remaining troubles compared according to normal statistical methodologies.

- Location Driven Clustering: Facility Problems: If a significant proportion (more than 30%) of AT&T's missed installation orders and resulting delay days were due to an individual location with a significant facility

[23] In situations where either the Bell Atlantic or AT&T performance is 0% or 100%, this formula will trigger the process below regardless of sample size.

problem, Bell Atlantic will provide the data demonstrating that the orders were "clustered" in a single facility shortfall. Then, Bell Atlantic will provide the provisioning performance with that data excluded. Additional location driven clustering may be demonstrated by disaggregating performance into smaller geographic areas.

- Time Driven Clustering: Single Day Events: If a significant proportion (more than 30%) of AT&T activity, provisioning or maintenance, occurs on a single day within a month, and that day represents an unusual amount of activity in a single day, Bell Atlantic will provide the data demonstrating that the activity is on that day. Bell Atlantic will compare that single day's performance for AT&T to Bell Atlantic's own retail performance. Then, Bell Atlantic will provide data with that day excluded from overall performance to demonstrate "parity".

Other Exceptions:

AT&T Actions: In addition, the key assumption of independence of data may be impacted by AT&T behavior such as order quality, causing excessive missed appointments; incorrect dispatch identification, resulting in excessive multiple dispatch and repeat reports; inappropriate appointment coding on orders, where extended due dates are desired; and delays in rescheduling appointments, when Bell Atlantic has missed an appointment. Bell Atlantic will bring such behavior to the attention of AT&T to attempt resolution. If such action negatively impacts performance, Bell Atlantic will provide appropriate detail documentation of the events and communication to AT&T.

Documentation:

Bell Atlantic will provide all details, ensuring protection of customer proprietary information, to AT&T. Details include, individual trouble reports, and orders with analysis of Bell Atlantic Retail and AT&T performance. For cable failures, Bell Atlantic will provide appropriate documentation detailing all other troubles associated with that cable failure.

Allowable Misses for Small Sample Sizes for Counted Variable Performance Measures with Benchmark Standards

- If less than 20 items, find volume of items measured in Sample Size Column.
- If the number of misses falls under the "Allowed Misses" column, then the performance measure is not included for remedies.

95% Standard:

Sample Size	Number of Allowed Misses
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1

12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	NA

Permutation analysis will be applied to calculate the z-statistic for measured variables using the following logic:

For testing differences in averages, a Monte Carlo procedure (sampling without replacement) will be used to estimate (with specified accuracy) the exact p-value for the test. If the exact p-value is less than the specified level of confidence, the null hypothesis (parity) is rejected. Equivalently, the Z_A value corresponding to the estimated p-value will be compared to the designated critical Z-value. If Z_A is greater than the critical Z-value, then the performance is non-compliant.

For testing differences in proportions or rates, the exact p-value will either be estimated with a Monte Carlo procedure or computed using an alternative algorithm. If the exact p-value is less than the specified level of confidence, the null hypothesis (parity) is rejected. Equivalently, the Z_A value corresponding to the estimated p-value will be compared to the designated critical Z-value. If Z_A is greater than the critical Z-value, then the performance is non-compliant.

Critical Z/t-Test Value

The critical Z/t test value will be –1.645 based on a 95% confidence level.

ethods Of Calculating Per Occurrence Voluntary Payments

Measurements For Which The Reporting Dimensions Are Averages Or Means.

Step 1: Calculate the average or the mean for the measurement for AT&T that would yield the Critical Z-value for each of the three non-compliant months. Use the same denominator as the one used in calculating the Z-statistic for the measurement.

Step 2: Calculate the percentage difference between the actual average and the calculated average (or benchmark value for benchmark measures) for each of the three non-compliant months. [24]

Step 3: Multiply the total number of AT&T data points[25] by the percentage calculated in the previous step. Calculate the average for three months and multiply the result by $1500, $900, and $600 for

[24] Not to exceed 100%.

[25] For "Pay Per Occurrence" measures, the amount of the remedy payment will be based upon measured occurrences of service provided to AT&T (i.e., the amount of the remedy payment will not be based upon measured occurrences of service provided to CLECs in the aggregate).

Measurements that are designated as High, Medium, and Low respectively; to determine the applicable assessment payable for that measure.

Measurements For Which The Reporting Dimensions Are Percentages.

Step 1: Calculate the percentage for the measurement for AT&T that would yield the Critical Z-value for each of the three non-compliant months. Use the same denominator as the one used in calculating the Z-statistic for the measure.

Step 2: Calculate the difference between the actual percentage for AT&T and the calculated percentage (or benchmark value for benchmark measures) for each of the three non-compliant months.

Step 3: Multiply the total number of AT&T data points[26] by the percentage calculated in the previous step. Calculate the average for three months and multiply the result by $1500, $900, and $600 for measurements that are designated High, Medium, and Low respectively: to determine the applicable assessment payable.

Measurements For Which The Reporting Dimensions Are Ratios Or Proportions.

Step 1: Calculate the ratio for the measurement for AT&T that would yield the Critical Z-value for each of the three non-compliant months. Use the same denominator as the one used in calculating the Z-statistic for the measure.

Step 2: Calculate the percentage difference between the actual ratio for AT&T and the calculated ratio (or benchmark value for benchmark measures) for each of the three non-compliant months.

Step 3: Multiply the total number of AT&T data points[27] by the percentage calculated in the previous step for each month. Calculate the average for three months and multiply the result by $1500, $900, and $600 for measurements that are designated as High, Medium, and Low respectively; to determine the applicable assessment for that measure.

Measurements for Which Payment Is Per Occurrence With A Cap

Voluntary payments are calculated on a per occurrence basis in accordance with the methodologies described above and are payable up to the caps identified in Attachment A-4.

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[26] For "Pay Per Occurrence" measures, the amount of the remedy payment will be based upon measured occurrences of service provided to AT&T (i.e., the amount of the remedy payment will not be based upon measured occurrences of service provided to CLECs in the aggregate).

[27] For "Pay Per Occurrence" measures, the amount of the remedy payment will be based upon measured occurrences of service provided to AT&T (i.e., the amount of the remedy payment will not be based upon measured occurrences of service provided to CLECs in the aggregate).

Methods Of Calculating Per Measurement Voluntary Payments

For "Per Measurement" ("pay per measure") measures, no remedy payment will be due in connection with a measure for a measured calendar month if there was no AT&T activity for that measure for that measured calendar month.

Per Measurement voluntary payments are payable as detailed in the Voluntary Payments Table below if the actual Z-value exceeds the critical Z-value.